

REMARKS/AMENDMENTS

The claims have been formally amended to provide proper antecedent language and to avoid infelicities of language in the translation. Furthermore, claims 35 and 56 have been amended to define the relationship of the boundary surfaces of the reaction chamber and the inner electrode surfaces in the manner described at the bottom of page 8 of the specification. With these amendments, the disclosed subject matter is believed to be more clearly defined.

The rejection of the sole independent device claim 35 under 35 U.S.C. 103(a) as being unpatentable over Marin, the primary reference, in view of Dammann, the secondary reference, is respectfully traversed.

Marin deals with a cavitation hydrogen generator. Hydrogen and oxygen molecules are generated in a reaction chamber by cavitation, i.e. by means which are **mechanical** in nature (col. 1, lines 16/17). For this purpose, the device has a rotor with turbine fans rotating at a high rpm to accelerate the process of cavitation (col. 1, lines 30-36). According to

col. 1, lines 28/29, the process is most efficient in a vacuum.

This differs **fundamentally** from applicant's device and method, which is based essentially on the **electrolysis**. For this purpose, electrodes are disposed in the reaction chamber to form an electrical field between an anode and a cathode. This electrolysis results in the disassociation of the hydrogen and oxygen molecules in the reaction medium (water). In applicant's device and method, the rotor serves merely to prevent the ions from moving to the electrodes where they would recombine. The rotor assures a flow in which the Brown gas remains concentrated around the axis of the reaction chamber.

The Examiner has conceded that "Marin fails to disclose a reaction chamber in which electrodes are disposed," but asserts that Dammann makes this modification of Marin obvious. Applicant respectfully disagrees with this combination of references operating **fundamentally differently**. No person of ordinary skill in the art would, or could, combine these two teachings.

Dammann does **not** produce hydrogen and oxygen, which is Marin's object, but a compound of hydrogen and carbon monoxide (col. 1, lines 26/27). For this purpose, the Dammann device provides **carbon** electrodes. An electrical arc between the carbon electrodes burns the electrodes with a temperature of the arc exceeding 6000°F (col. 1, lines 28-31).

Placing Dammann's electrodes in Marin's reaction chamber would not only make no sense but would fail to generate hydrogen and oxygen. Contradicting Marin's purpose of using **strictly mechanical** means, i.e. cavitation, for this production of hydrogen, Dammann uses an **electrical arc** to burn carbon electrodes to produce carbon monoxide. As disclosed in col. 8, lines 61/62, of Marin, his generator has a carbon fiber lining, which would be burned by the temperatures in Dammann's device, these temperatures being required to burn the carbon electrodes of Dammann to produce carbon monoxide. Nor does Dammann use **electrolysis** of a reaction medium to generate Brown gas, as claimed by applicant. At the temperatures prevailing in the Dammann process, the Brown gas (an activated form of a hydrogen-oxygen mixture) would be immediately ignited and would burn in the reaction chamber.

In view of the above, it is respectfully submitted that the combination of the Marin and Dammann teachings would not have been obvious to a person of ordinary skill in the art at the time the present invention was made, as required by Sec. 103. In fact, if Dammann's electrodes were placed in Marin's reaction chamber, it would destroy the purpose of Marin's device. Nor would it lead to applicant's claimed device because it would not generate Brown gas.

For clarification, the claims have been amended so as to distinguish clearly over the electrode arrangement of Dammann whose electrodes must extend deeply into the reaction chamber to produce an electrical arc therebetween. In contrast thereto, applicant's electrodes essentially form the boundary surfaces of the reaction chamber.

Accordingly, claim 35 is respectfully submitted clearly to be patentable over this art. As to method claim 56, since the prior art device clearly is **not** the same as that of the prior art, as alleged by the Examiner, this claim is respectfully submitted to be patentable over the art for the same reasons as set forth hereinabove in connection with claim

35. All other claims depending directly or indirectly on claims 35 and 56, they are believed to be allowable therewith. For the record, applicant wishes to state that the combination of three or four patents dealing with differently functioning devices used for at least some of the dependent claims is believed to be contrary to the statute, for the same reason that this combination is improper in relation to claims 35 and 56. Forming a mosaic of features found in different patents, without citing anything **in** the prior art (rather than in applicant's teaching), is respectfully submitted to be contrary to the statutory requirements.

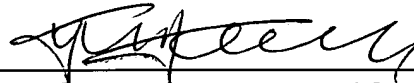
The case law on this point is voluminous but applicant may cite its essence in the decision by the U.S. Court of Appeals, Federal Circuit, **In re Lee**, 61 USPQ2d 1430, at 1433, wherein the Court held

"When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness."

In the present instant, the relevant evidence, which has been elaborated hereinabove, is **contrary** to the "teaching, motivation, or suggestion" found in the references.

A sincere effort having been made to overcome all grounds of rejection, favorable reconsideration and allowance of claims 35-67 are respectfully solicited.

Respectfully submitted,
Hans-Peter BIERBAUMER



Kurt Keiman, Reg. No. 18,628
Allison C. Collard, Reg. No. 22,532
Edward R. Freedman, Reg. No. 26,048
Frederick J. Dorchak, Reg. No. 29,298
Attorneys for Applicants

COLLARD & ROE, P.C.
1077 Northern Boulevard
Roslyn, New York 11576
(516) 365-9802

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Amy Klein

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